

who quotes the original *Steleopyga* in the synonymy under *Blatta*. The only species, *orientalis*, included under this emended form by Fischer is not included by Shelford, who uses the name for a group of species typified by the *Blatta rhombifolia* of Stoll. This group of species which Mr. Shelford lists under *Stylopyga* is separable from the species of the genus *Blatta* only by the length and development of wings in the male and can thus all be logically referred to that genus. Therefore the twenty-five species listed by Shelford in the above paper are transferred to the genus *Blatta*.

The genus *Dorylæa* of Stal is very closely allied to *Blatta* and will eventually very likely prove a synonym of that genus.

LUCILIA SERICATA AS A HOUSEHOLD PEST.

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In October, 1910, a lady asked me, "Why do worms prefer oriental rugs to Wilton carpets?" Inquiry revealed the fact that one of her friends was finding large numbers of white "worms" under her oriental rugs.

Naturally my first thought was of fleas and Dermestid larvæ, but the description was at variance with either, neither dogs or cats were about, the rugs had been recently cleaned, and the house was immaculately kept,—so I requested samples. In a few days a vial containing several Muscid maggots and a puparium was received. Careful questioning in regard to food material for such creatures finally secured the information that a squirrel family had been evicted recently from one of the chimneys and that one of the young squirrels, it was believed, had died in the flue. This clue accounted satisfactorily for the presence of the troublesome maggots and the sequel. With this introduction, the following extracts from letters concerning the outbreak will be self explanatory, due allowance being made, if thought necessary, for a possible, but under the circumstances, very pardonable, exaggeration in regard to the numbers of the pest.

[Nov. 23] "Mrs. ——— writes me that you would like to hear about our 'squirrels.' On Sept. 17 squirrel No. 1 came down the chimney and took possession of the lower part of the house,

and on the following day No. 2 raced through the second story rooms. The chimney was then covered with netting and as there seemed to be two youngsters left in the chimney, the poor mother sat and cried on the outside of the wire. It was either the 22nd or 23rd that one of those in the chimney was coaxed out, but the other was never heard from and probably died in the chimney although we have tried every way possible to find the body.

"On Thursday, Oct. 6, I noticed small white crawling things under a rug—then, lifting the corners of other rugs, found thousands. Under fifteen oriental rugs we swept up several dustpans full, but none from under the Wilton carpet rug in the living-room, which of course made us think that they had something to do with the rugs. Our rugs we have had for several years, and they were all cleaned with vacuum cleaner about the middle of September.

"On my return from Boston, Friday, Oct. 14, the day I gave the specimens of maggot (or whatever it was) to Mrs. ———, I found that the family had been killing green flies all day by hundreds. They swarmed on the windows and were swept down and killed. They died hard—had to be burned or brushed into Dalmatian powder. It was exciting! This lasted for over a week. We gave up everything to kill flies. At first they were sluggish but later in the season they were harder to kill.

"My mother thinks that there is some connection between dead squirrel and fly—but why did they choose oriental rugs and not those of American manufacture? There were more found in the hall than in the rooms. The fireplaces from the squirrels' chimney are in the living-room and hall and there *were* more worms in those rooms. We are so anxious to know something about them—why we were so pestered, and if we have this to look forward to each October . . . I should have said that there are no birds or animals in the house and that the whole house was thoroughly cleaned just before the squirrels made their appearance—that was why we felt so disturbed."

[Jan. 4] "As to the rugs—on each floor is a large rug, and one in each doorway, leaving a space all around the rooms of about 1½ to 2 feet. All are oriental excepting the large one in the living-room. Most of the larvæ were found in the hall and recep-

tion-room, and in the front of the living-room. The rugs in the bay-windows were the most popular, excepting the large one in the hall, and it was at the front windows in the living and reception rooms that the flies swarmed.

"We are still finding three or four [flies] daily."

The flies, several of which were sent me, proved on examination by Mr. C. W. Johnson to be *Lucilia sericata* Meigen, a common green-bottle fly.

The accompanying plan and scale will make clear the relation of chimney, rugs, and windows, and the direction and length of the larval migration. The house faces nearly west.

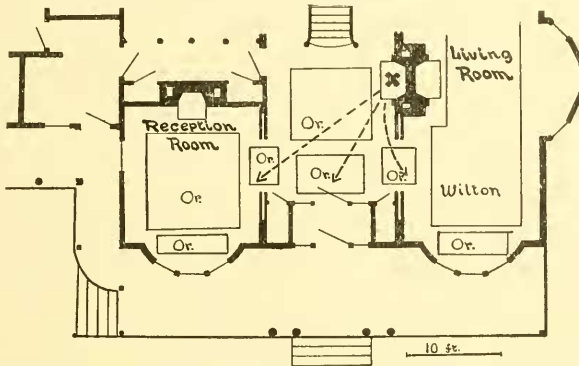


Fig. 1. X = fireplace of squirrel's chimney. The maggots were most numerous under the oriental rugs in the front of the hall and in the two bay windows at front of house.

Judging from the data secured, the odor of the decaying carcass of the squirrel, passing out of the top of the chimney, led to the female flies seeking suitable places to oviposit. The larvæ of *Phormia regina*, an allied species, have been observed by Folsom to be negatively phototropic until maturity, when they become positively phototropic for a brief period, seek the light, leaving the food to travel to some distance; then, becoming negatively phototropic again, they seek shelter in which to pupate. Apparently, the larvæ of *Lucilia sericata* exhibit similar tropisms. This behavior, it is easy to see, is adaptive in character, resulting in the development and preservation of larger numbers, under natural conditions, than if the larvæ remained in the food material.

Although all of the larvæ that could be found were destroyed, it is evident from the abundance of the flies that many escaped

observation, perhaps remaining in the chimney, or being overlooked in the registers, etc.

The preference of the maggots for the oriental rugs rather than the Wilton was probably due to the softer texture of the lower side of the former, and the greater rigidity and weight of the latter. Possibly additional reason may be found in the character of the dyes used, which are said to be very largely of vegetable origin in the oriental rugs. To determine if this was also a factor experimentation would be necessary.

It is needless to say that assurance was given that there was little likelihood of a repetition of the disagreeable occurrence.

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